Listing of Claims:

1. (Currently Amended) A thin-film LED comprising:

an active layer, which emits electromagnetic radiation in a main radiation direction;

a current expansion layer, which is disposed downstream of the active layer in the main radiation direction and is made of a first nitride compound semiconductor material;

a main area, through which the electromagnetic radiation emitted in the main radiation direction is coupled out; and

a first contact layer arranged on the main area,

wherein a transverse conductivity of the current expansion layer is increased by formation of a two-dimensional electron gas or hole gas, [[and]]

wherein at least one layer made of a second nitride compound semiconductor material having a larger electronic band gap than the first nitride compound semiconductor material is ~~embedded~~ sandwiched in the current expansion layer to form [[a]] the two-dimensional electron gas or hole gas in the current expansion layer, and

wherein the at least one layer made of the second nitride compound semiconductor material has a doping, a dopant concentration being higher in regions adjoining the current expansion layer than in a central region of the at least one layer made of the second nitride compound semiconductor material.

2. (Canceled)

3. (Previously Presented) The thin-film LED as claimed in claim 1, wherein a plurality of layers made of the second nitride compound semiconductor material are embedded in the current expansion layer.

4. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the at least one layer made of the second nitride compound semiconductor material comprises a number of layers made of the second nitride compound semiconductor material, wherein the number of layers is between 1 and 5 inclusive.

5. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the at least one layer made of the second nitride compound semiconductor material has a thickness of 10 nm to 100 nm.

6. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the first nitride compound semiconductor material is GaN.

7. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the second nitride compound semiconductor material is $Al_xGa_{1-x}N$ where $0.1 \leq x \leq 0.2$.

8. (Canceled)

9. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the first and second nitride compound semiconductor materials are n-doped.

10. (Withdrawn) The thin-film LED as claimed in claim 1, wherein the first nitride compound semiconductor material is p-doped and the second nitride compound semiconductor material is n-doped.

11. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the active layer includes $In_xAl_yGa_{1-x-y}N$ where $0 \leq x \leq 1$, $0 \leq y \leq 1$ and $x + y \leq 1$.

12. (Previously Presented) The thin-film LED as claimed in claim 1, wherein at least one edge length of the main area is 400 μm or more.

13. (Previously Presented) The thin-film LED as claimed in claim 12, wherein at least one edge length of the main area is 800 μm or more.

14. (Previously Presented) The thin-film LED as claimed in claim 1, wherein operation of the thin-film LED with a current intensity of 300 mA or more is provided.

15. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the first contact layer comprises no aluminum.

16. (Previously Presented) The thin-film LED as claimed in claim 1, wherein less than 15% of the total area of the main area is covered by the first contact layer.

17. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the first contact layer has a lateral structure comprising a contact area and a plurality of contact webs.

18. (Previously Presented) The thin-film LED as claimed in claim 17, wherein the contact area is surrounded by at least one frame-type contact web, the frame-type contact web being connected to the contact area by means of at least one further contact web.

19. (Previously Presented) The thin-film LED as claimed in claim 18, wherein the frame-type contact web has a square, rectangular or circular form.

20. (Previously Presented) The thin-film LED as claimed in claim 18, wherein the number of frame-type contact webs is one, two or three.

21. (Previously Presented) The thin-film LED as claimed in claim 1, wherein a second contact layer, which reflects the electromagnetic radiation emitted by the active layer, is provided on a side of the active layer opposite to the first contact layer, the first contact layer having a contact area and the second contact layer having a cutout in a region opposite the contact area.

22. (Previously Presented) The thin-film LED as claimed in claim 1, wherein the current expansion layer includes two partial layers made of the first nitride compound

semiconductor material separated from one another by the at least one layer made of the second nitride compound semiconductor material.

23. (New) A thin-film LED comprising:

an active layer, which emits electromagnetic radiation in a main radiation direction;

a current expansion layer, which is disposed downstream of the active layer in the main radiation direction and is made of a first nitride compound semiconductor material;

a main area, through which the electromagnetic radiation emitted in the main radiation direction is coupled out; and

a first contact layer arranged on the main area,

wherein a transverse conductivity of the current expansion layer is increased by formation of a two-dimensional electron gas or hole gas,

wherein at least one layer made of a second nitride compound semiconductor material having a larger electronic band gap than the first nitride compound semiconductor material is sandwiched in the current expansion layer to form the two-dimensional electron gas or hole gas in the current expansion layer,

wherein the at least one layer made of the second nitride compound semiconductor material has a doping, a dopant concentration being higher in regions adjoining the current expansion layer than in a central region of the at least one layer made of the second nitride compound semiconductor material, and

wherein the dopant concentration in the regions adjoining the current expansion layer is higher than in a dopant concentration in the current expansion layer.